CONFIGURATION

ATTENTION ! The operation of installation must be do by expert electrician.

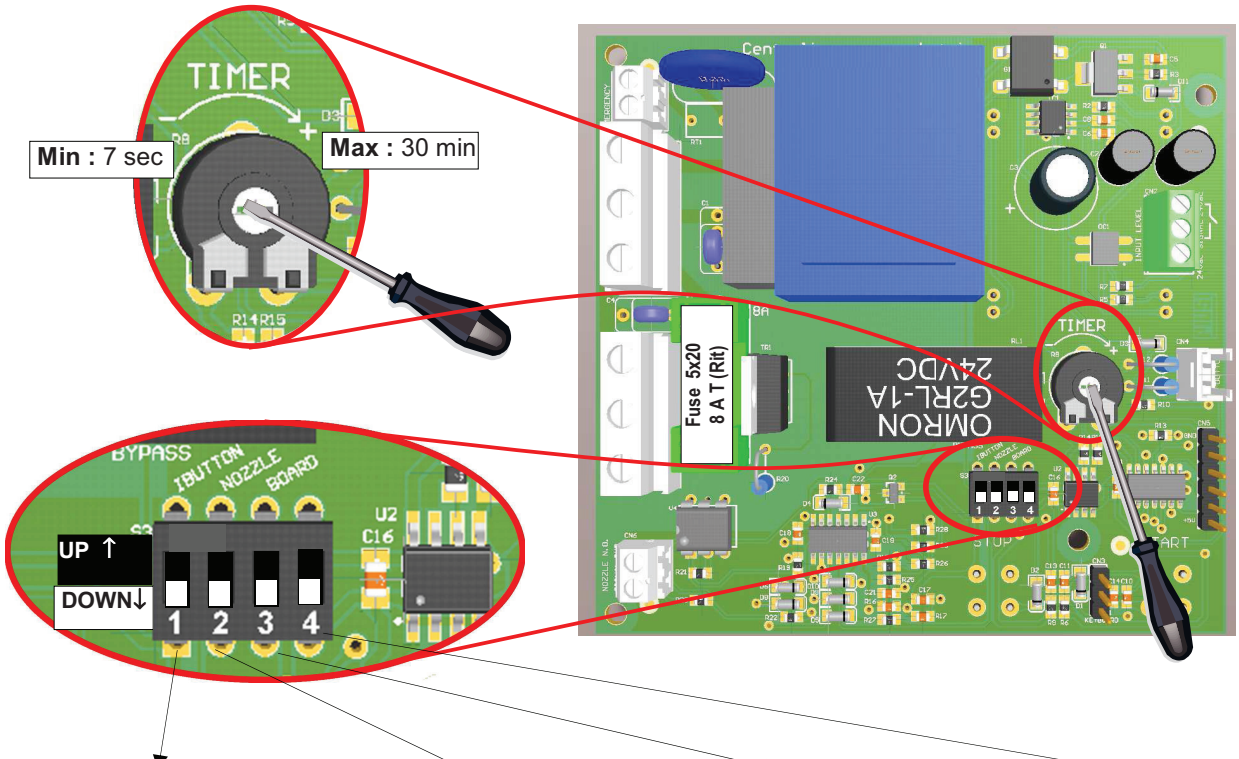
DANGER OF ELECTRICAL SCHOCK!

The Control Unit can be set to have all the input or only someone.
With the DIP switch S3 it can be possible select:

1) Presence or not of Electronic key
2) Presence or not of Nozzle Contact
3) Complete bypass of electronic function. In this case the pump is switched ON when the Nozzle contact is close. The nozzle contact remain the unique control for the pump activation.

With the trimmer TIMER can be set the maximum duration of dispensing
All the configuration are read at start-up. At the start-up the system determines the state of the trimmer TIMER and that of the DIP-SWITCH of the BYPASS switch **S3.**
To change the Hardware Settings (Dip Switch And Timer) proceed as follows:

i. **Disconnection power to the control unit;**
ii. Open the rear cover of the control unit;
iii. Change the trimmer value (turning with a small flat-head screwdriver) and/or the switches of switch S3;
iv. Close the rear cover of the control unit;
v. Start the control unit again to make the new settings operative.



Position	Switch - 1 - IButton	Meaning	Switch - 2 - Nozzle	Meaning	Switch - 3 - Board	Meaning	Switch - 4 - NC	Meaning
UP ↑	Switch **UP ↑**	Electronic Key DISABLED	Switch **UP ↑**	Nozzle Contact DISABLED	Switch **UP ↑**	Electronic Control DISABLED	Switch **UP ↑**	Not Connected
DOWN ↓ (Factory Default for all the switch)	Switch DOWN ↓	Electronic Key ENABLED	Switch DOWN ↓	Nozzle Contact ENABLED	Switch DOWN ↓	Electronic Control ENABLED	Switch DOWN ↓	Not Connected

SELECTION PROCEDURE:
- With the unit OFF, position the DIP switches according to wanted configuration
- Simultaneously keep Start and Stop keys pressed
- Switch-on the unit
- The key (3) LED will switch-on for 1 second to signal settings have been saved.
- Release the Start and Stop keys

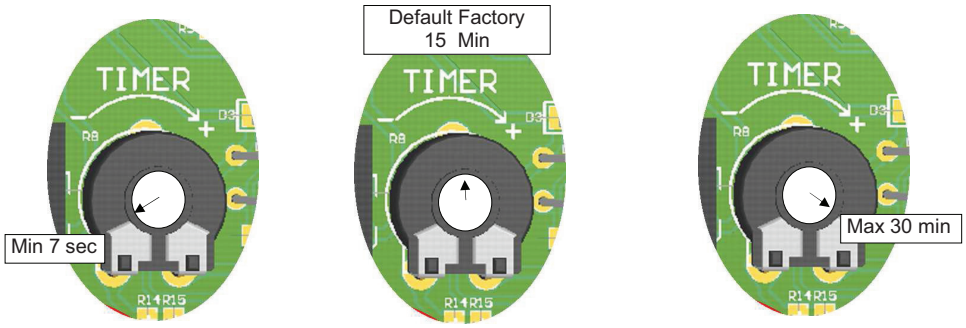
Is It possible to have a table with state condition by DIP switch S3 and corresponding operational functioning

DIP switch S3			Mode START Dispensing			Mode STOP Dispensing			
I-Button	Nozzle	Board	Enabled by Electronic Key	Enabled by Nozze Contact	Start Dispensing with press START button (1)	Stop Dispensing with Nozze Contact	Stop Dispensino with Press STOP button (0)	Stop Dispensino by TIMER	Stop Dispensino by Contact Level
DOWN ↓	**DOWN ↓**	**DOWN ↓**	YES	YES	NO	YES	YES	YES	YES
UP ↑	**DOWN ↓**	**DOWN ↓**	NO	YES	NO	YES	YES	YES	YES
GIU ↓	**UP ↑**	**DOWN ↓**	YES	NO	NO	NO	YES	YES	YES
UP ↑	**UP ↑**	**DOWN ↓**	NO	NO	YES	NO	YES	YES	YES
Indifferent	Indifferent	**UP ↑**	NO	YES	NO	YES	NO	NO	NO

Table 1.

WARNING ! When there is set the presence of nozzle contact it is necessary when the control unit switch-on that the nozzle contact is OPEN (nozzle in the nozzle holder)

The TIMER value varies from **minimum 7 seconds** when fully turned to the left (-) to a **maximum 30 minutes** when fully turned to the right (+). This value indicates the max duration of dispensing.
The trimmer TIMER value and that of S3 is only read at switch-on.



2. Procedures for Association of Manager's Red Electronic Key

- To associate the manager's key (RED key) to the control unit, proceed as follows:
  - i. Switch-off the control unit;
  - ii. Press the Start button (1) and keep it pressed;
  - iii. Switch on the control unit;
  - iv. When the indicator LED linked to the keys starts to flash ■ ■ ■ ■, release the Start button;
  - v. Position the Red Key;
  - vi. The key LED stays lit ■■■■■ for 2 seconds, thus indicating that the positioned key has been stored, and then switches off.

3. Association / elimination of user keys

- To associate or eliminate a User key (YELLOW key) to the control unit, proceed as follows:
  - i. Switch on the control unit;
  - ii. Position the Manager's red key (this must have previously been associated)
  - iii. The key LED starts to flash ■ ■ ■ ■ indicating that the control unit is ready to associate one or more User keys;

iv. If a User key is to be **stored** in the control unit memory, press the START key (1). Conversely, to **delete** a user I-Button key from the memory press the STOP key (0). This way, a work session is opened that will perform the same storage or cancellation operation for all the keys subsequently positioned.

v. Position the User key;

vi. If reading is performed correctly, the I-Button LED remains on for 2 seconds thus indicating that the positioned User I-Button key has been stored or deleted and then starts to flash in standby for other keys.

vii. If reading is NOT performed correctly, the I-Button LED increases the flashing frequency for about 2 seconds , and then starts to flash with initial frequency . If this occurs, position the User I-Button key again.

viii. If there are any further User I-Button keys, repeat the procedure from point V;

ix. If there are no more User I-Button keys to be stored, position the I-Button Manager key again to terminate the operation.

4. **TOTAL SYSTEM RESET with deletion of all data from EEPROM**
   - This procedure is irreversible and its purpose is to restore the Control Unit board to the state in which it left the factory, eliminating all the data relating to any associated User and Manager I-Buttons. To perform this operation, proceed as follows:
     i. Switch off the control unit;
     ii. Press the Stop button (0) and keep it pressed;
     iii. Switch on the control unit;
     iv. When the I-Button LED starts to flash release the Stop button (0);
     v. Press the Stop button (0) 10 times;
     vi. If the Stop button (0) is pressed 10 times within 20 seconds, the internal memory of the Control unit board will be deleted once and for all, otherwise the Control unit board will return to a standby state, depending on the setting of the switch S3.

5. **Normal Use**

   - Table 1 shows the possible cases we can have with the selection of the DIP switches.

The most frequent cases of configuration of the system are the following four:

Case 1:
- Electronic Key YES
- Nozzle contact YES

In this case the operating sequence is:
1. The operator positions his key and he is recognized by the system and validated. At this moment the key led lights up
2. The operator takes the nozzle and with this consent the pump starts up. The key LED goes out
3. The dispensing is done.
4. The pump cuts out because of one of the following cases:
   4.1 The operator replaces the nozzle
   4.2 The operator presses the Stop button (0)
   4.3 All the time setted by the timer passes.

Case 2:
- Electronic key YES

- Nozzle contact NO

In this case the operating sequence is:
1. The operator position his electronic key, he is validated by the system and the pump starts up. The Key Led flashes for a little time.
2. The operator takes the nozzle
3. The dispensing is done
4. The pump cuts out because of one of the following cases:
   4.1 The operator presses the Stop button (0)
   4.2 All the time setted by the timer passes.

Case 3:
- Electronic key NO
- Nozzle contact NO

In this case the operating sequence is:
1. The operator takes the nozzle
2. He presses the Start button (1)
3. The dispensing is done
4. The pump cuts out because of one of the following cases:
   4.1 The operator presses the Stop button (0)
   4.2 All the time setted by the timer passes.

Case 4:
- Electronic control disabled
- Nozzle contact YES

In this case the operating sequence is:
1. The operator takes the nozzle and the pump starts up.
2. The refuelling is done
3. The pump cuts out because of one of the following cases:
   3.1 The operator replaces the nozzle.

The listed cases are valid with tank in normal condition and no in reserve condition, that is with absent Low Level Contact.
If the Low Level Contact intervenes, the dispensing is immediately stopped, even during the refuelling.

In these condition, dispensing is allowed only by the following procedure:

Forced Dispensing with Low Level Contact on

When the Low Level Contact intervenes, the system allows dispensing ONLY with a forced procedure.

The Start button must be pressed for 5 seconds. The Key led starts flashing 
In this way the pump block is inhibited for a single dispensing.
The next steps to dispense depend on the configuration of the system (as the previous paragraph describes).

MAINTENANCE

Pump fuse: glass fuse 5x20 8 A T (delayed)

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
The Power Led does not light up	- The system is not correctly power supplied - Power connections are not correct	- Verify the voltage electricity network - Verify power connections
The motor does not start up	- The electrical connections are not correct - The DIP switch settings are not consistent with the expected functions. - The motor fuse has blown	- Verify electrical connections - Verify the DIP switch - Verify the motor fuse on the electronic board.
The motor starts up before receiving the consent from the nozzle contact, even if the DIP switch is correctly configured	- When the system was powered the first time, the nozzle was held up and the nozzle contact was closed. - **ATTENTION:** If the nozzle contact has been configured, when the system is powered the nozzle must be replaced in its housing (open contact). This is requested because the system verifies all the peripherals at the start up.	- Switch off the system, placed the nozzle in its housing and switch on the system again.
The system has an anomalous behaviour or it never gives the consent for starting up the motor	- Low tank level – Level sensor enabled - Software configurations are not correct - Problems of the board	- Verify the level and that the level sensor works well - Verify the software configurations. Verify the number and the type of the requested consents for dispensing - Verify that all the electrical connections that concern the consents are correct. - If everything is correct, but the system continues not working well and it is necessary dispening only by mean of the nozzle contact, set the DIP switch 3 to bypass all the electrical consents except the nozzle contact. Follow the instructions: - Switch off the system - Open the box taking off the screws to get access to the board compartement. - Put the DIP switch 3 in “Electronic control disabled”